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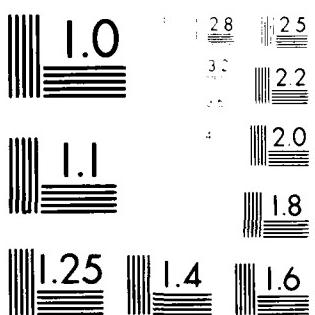
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16. Abstract The report includes an analysis of the current threat against civil aviation along with information regarding hijacking attempts, security incidents, bomb threats, and passenger screening activity. It also summarizes ongoing activities to assure adequate protection of civil air commerce against hijacking/sabotage and related crimes, and other aspects of the Civil Aviation Security Program.		
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**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

WASHINGTON, D.C. 20591



OFFICE OF
THE ADMINISTRATOR

April 25, 1979

Honorable Walter F. Mondale
President of the Senate
Washington, D.C. 20510

Dear Mr. President:

I am pleased to forward the Federal Aviation Administration's Semiannual Report to Congress on the Effectiveness of the Civil Aviation Security Program. This report, covering the last 6 months of 1978, is submitted in accordance with Section 315(a) of the Federal Aviation Act as amended by Public Law 93-366.

This report marks completion of the sixth year of the U.S. Civil Aviation Security Program. The record over those years clearly attests to its success. In that period, 2 billion persons were screened and 3 billion pieces of carry-on items inspected on 30 million flights from 440 airports. These measures resulted in the detection of over 17,000 firearms resulting in almost 6,000 related arrests. Furthermore, it is estimated that 75 hijackings or related crimes may have been prevented by the airline and airport security measures in effect.

Moreover, of the 25 U.S. airline hijackings that occurred over this 6-year period, none was caused by real firearms or explosives penetrating the screening system. Overall, the record is a testimony to the successful efforts of U.S. airlines, airport operators, local communities and to the support and cooperation of the air traveling public.

Despite the safeguards in place and their effectiveness, there were more U.S. airline hijacking incidents (8) in 1978 than in any year since 1972, the last of the "peak" hijacking years. Yet, as the threat persists--heightened by continuing acts of international terrorism--concerted counterefforts remain steadfast and effective.

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Efforts will continue to improve the existing system in order to ensure the highest possible level of security for air travelers. Internationally, work is continuing to achieve uniform and effective security standards among all countries of the world.

A copy of this report has also been sent to the Speaker of the House of Representatives.

Sincerely,

Langhorne Bond
Langhorne Bond
Administrator

Enclosure

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**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

WASHINGTON, D.C. 20591



**OFFICE OF
THE ADMINISTRATOR**

April 25, 1979

Honorable Thomas P. O'Neill, Jr.
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Washington, D.C. 20515

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Langhorne Bond
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I. INTRODUCTION

This ninth Semiannual Report to Congress on the Effectiveness of the U.S. Civil Aviation Security Program covers the period July 1 - December 31, 1978. It is required by Section 315(a) of the Federal Aviation Act as amended by the Air Transportation Security Act of 1974 (Public Law 93-366).

The report presents an update on the problem of criminal acts against civil aviation and describes the measures taken to counter the prevailing threat. Aircraft hijackings and related crimes constitute continuing worldwide phenomena. Their prevention poses a constant challenge to all persons involved in ensuring the safety and security of civil aviation. The Report to Congress does not cite easy or perfect solutions but it does outline some significant and effective efforts taken by Government, industry and the air traveling public in meeting the problem, and it calls attention to the highly successful U.S. program that has resulted.

II. EXECUTIVE SUMMARY

This Report covers the last 6 months of 1978, the sixth year of the U.S. Civil Aviation Security Program. Much occurred in aviation security since January 1973 when the program, as we now know it, came into being. In those 6 years over 2 billion persons were screened and 3 billion pieces of carry-on items inspected for over 30 million airline flights departing U.S. airports. During that period over 17,000 firearms were detected resulting in almost 6,000 related arrests.

Although there were 25 U.S. airline hijackings during the 1973-1978 period, none involved real firearms or explosives passing undetected through the screening system. Moreover, it is estimated that at least 75 hijackings or related crimes may have been prevented by U.S. airline and airport security measures.

Despite the safeguards in place, and their effectiveness, hijackings continue to occur. There were more (8) U.S. air carrier hijackings in 1978 than in any year since 1972, the last of the "peak" hijacking years. Yet, as the threat persists--heightened by continuing acts of international terrorism--concerted counterefforts remain steadfast and effective.

While passenger screening procedures continued to intercept firearms and other prohibited items, airline and airport security regulations and procedures continued to be improved, refined and made more responsive to the needs of the air traveling public.

And, in the international sphere, significant actions were taken to meet the worldwide threat. International organizations persisted in working toward uniform and high aviation security standards among countries throughout the world.

The outlook seems clear. Although crimes against aviation will continue, the U.S. Civil Aviation Security Program is capable of responding successfully to the threat. Moreover, the U.S. aviation community will continue to lead the way in the international effort to combat air piracy and other crimes against civil aviation.

III. INCIDENTS AND THE THREAT

U.S. Hijackings - During this reporting period hijackings continued at a high level. Five air carrier and 2 general aviation hijackings occurred between July 1 and December 31, 1978, raising the yearly totals to 8 and 5 respectively. The 8 air carrier hijackings in 1978 are more than in any year since 1972, the last of the "peak" hijacking years. None of the 8 incidents occurred because of real weapons penetrating the preboard passenger screening system. As a matter of fact, none of the 25 U.S. airline hijackings that occurred since 1973 involved real firearms or explosives passing undetected through the screening system.

The five U.S. airline hijackings which occurred during this reporting period are described below:

(See Exhibits 1 & 2)

- o August 25 - An unidentified passenger aboard a TWA international flight passed notes to a flight attendant threatening that heavily armed hijackers would blow up the aircraft unless numerous individuals were released from prison. The aircraft continued to its scheduled destination at Geneva and 8 hours after landing all passengers and crew deplaned. No explosives or weapons were on board and the man who passed the threatening notes was subsequently identified and arrested in the U.S. on Federal charges of interference with flight crew.

- August 27 - A female passenger on board a United Air Lines flight placed a note in the aircraft galley stating there was a bomb on board and that the aircraft should divert to Vancouver. The aircraft landed at Vancouver and the hijacker, discovered to be without weapon or explosive, was taken into custody. She was charged with aircraft piracy and with the false reporting of a bomb threat.
- November 23 - A man rammed his car through a gate at the Dane County Regional Airport in Madison, Wisconsin. He drove up to a North Central Airlines aircraft, boarded and announced that he had a bomb in a white plastic bag which he could detonate by puncturing the bag with a small knife he carried. The man appeared to be incoherent but at one point said he wanted to go to Mexico. All of the passengers and crew escaped and law enforcement officers boarded and took the man into custody. No explosive device was discovered. The man was charged with initiating a bomb scare and at last report was undergoing psychiatric treatment.
- December 14 - A National Airlines flight en route to Miami was hijacked by a male passenger who stated that he wanted to go to Cuba. Throughout the incident, the man kept his hand in his pocket, simulating a weapon. The aircraft diverted to Charleston, South Carolina, where authorities boarded and took the man into custody without incident. The hijacker did not have a weapon. He was charged with aircraft piracy.
- December 21 - A young female passenger hijacked a Kansas City-bound TWA airliner in an attempt to secure the release of a prisoner being held in a Federal penitentiary in Marion, Illinois. The girl passed a note stating she had three sticks of dynamite on her person and demanding that the flight divert to Carbondale, Illinois, and that the prisoner be released. She threatened to blow up the aircraft if her demands were not met. The aircraft landed at Marion, Illinois, where after many hours all passengers were either released or escaped. The young woman, who did not have explosives, was taken into custody. She will be tried on the charge of air piracy.

In addition to recording the number of actual hijackings, the Federal Aviation Administration (FAA) has attempted to identify and record those incidents in which it appeared that an individual intended to commit a crime against aviation but was prevented from doing so by the security procedures in effect. One incident of this kind occurred during this period, raising the estimated total number of hijackings or related crimes prevented to 75 since 1973. That incident is summarized below:

- o August 8 - A man attempted to pass through a security checkpoint. He did not clear the weapons detector and was discovered to be carrying a .25 caliber pistol which had been broken down into three sections. Each section was located in a different pocket. A clip containing seven live rounds of .25 caliber ammunition was also discovered in a separate pocket. The man was arrested for carrying a concealed weapon.

(See Exhibit 3)

The two general aviation hijackings which occurred during this reporting period are described below:

(See Exhibit 4)

- o September 13 - Four prisoners on a recreational outing at a bowling alley managed to obtain a shotgun, disarmed their guards and escaped to an airport in Dickson, Tennessee, where they commandeered a small aircraft. The pilot and the four hijackers flew southwesterly and eventually landed in a field near Marianna, Arkansas, where the prisoners subsequently escaped. Three of the four were captured and were sentenced to 30 years in prison on Federal charges of kidnapping.
- o December 16 - A man who chartered a small aircraft for a local flight at Rural Retreat, Virginia, pulled a gun on the pilot and ordered him to fly to Camden, South Carolina. The man demanded the release of a patient being held in a mental hospital in South Carolina and threatened to kill the pilot and another man on board if his demands were not met. During the incident the pilot and the other passenger jumped the hijacker and subdued him. The aircraft landed at Lancaster, South Carolina, where the man was taken into custody. He was charged with aircraft piracy.

Foreign Hijackings - During 1978, 17 foreign air carriers were hijacked. Six occurred during this reporting period. In at least 9 of the 1978 incidents, the hijackers possessed real weapons or explosives. Furthermore, in 8 of the 9 incidents, weapons were introduced through the normal passenger boarding process and would have been intercepted by effective passenger and carry-on baggage screening procedures. These hijackings resulted in 3 deaths and 12 injuries and threatened to claim many other lives during their course.

Airport/Aircraft Sabotage - Two significant incidents involving the use of explosive devices occurred during this period:

- o September 22 - An extortion attempt was directed against Portland International Airport. An unidentified man telephoned a car rental agency at the airport advising that there was a bomb in a piece of luggage near the rental counter. The bag was located and was discovered to contain 12 sticks of dynamite and an extortion note. The extortionist made no further contact and was not identified.
- o December 22 - An explosive device was discovered in a rental automobile at Stapleton Airport in Denver, Colorado. The device was dismantled and was discovered to contain black powder and a dummy blasting cap.

Bomb Threats - Threats involving the use of explosives against aircraft increased slightly this period while threats against airports decreased for the fifth consecutive 6-month period. The figures for the 12-month period, January-December 1978, are especially encouraging. Threats against aircraft were lower in 1978 than in any year since 1970 and threats against airports dropped to their lowest level since 1973.

(See Exhibits 5 & 6)

During this reporting period 297 threats against aircraft were in the "serious" category and of those, 241 were received telephonically. These threats resulted in 163 reported flight delays or diversions and in 233 aircraft searches. The threats were directed against 44 different U.S. and foreign air carriers.

The great majority of the 153 bomb threats against airports were considered to be serious and were treated as such. These threats resulted in 23 evacuations of airport facilities and 106 searches, and contributed to numerous flight delays. They involved a total of 61 airports across the nation.

Aircraft and airport bomb threats during this period led to the arrest of 28 persons under Federal or local statutes. Most prosecutive actions are pending at this time.

The Threat - The high level of hijackings and other criminal acts against aviation is evidence that aviation remains a choice target to a variety of individuals and groups, some with terrorist affiliations. Although relatively few recent hijackings have been terrorist acts (none during this period), aviation still remains attractive to organizations or individuals attempting to illegally further political goals. Evidence of this attraction occurred on August 20 when Palestinian terrorists attacked El Al crewmembers disembarking from a bus in front of a London hotel. Two persons were killed and 9 were wounded.

There were other criminal acts against aviation during this 6-month period. Altogether, 33 crimes against civil aviation were committed worldwide raising the total number of worldwide criminal acts against aviation in 1978 to 71. Of these 71 incidents, 31 were hijackings committed mostly against U.S. or European air carriers; 16 were explosions on aircraft, at airports or at airline offices; 9 involved explosives found on aircraft or at airports; 3 involved terrorist attacks and 12 other incidents involved attacks against aircraft and aviation facilities, including a surface to air missile attack against a Rhodesian airliner which resulted in the deaths of 48 people. Twenty-six of the incidents, resulting in 1 death and 2 injuries, involved U.S. civil aviation. Since 1974, worldwide criminal acts against civil aviation have resulted in 695 deaths and 636 injuries, with 116 deaths and 111 injuries involving U.S. civil aviation.

(See Exhibits 7 & 8)

Acts of terrorism continue to pose a serious threat to aviation throughout the world. The greatest danger remains in the Middle East and Europe where terrorist and revolutionary groups continue their close cooperation. This type of cooperation serves to enhance the commission of terrorist criminal activity against international targets including acts by one organization on behalf of another.

In South America very little criminal activity occurred during this reporting period primarily due to the successful security operations against terrorist organizations in that area. In contrast, guerrilla activities in the Central American countries of El Salvador, Guatemala and Nicaragua continued during the period. In the United States, Cuban anti-Castro exile groups and Puerto Rican pro-independence extremist groups continued to threaten facilities and property. However, the anti-Castro activity appeared to have subsided somewhat as a result of Castro's open-door policy for Cuban exiles.

IV. PASSENGER SCREENING

Airline passenger screening procedures which include 100% inspection of all passengers and their carry-on items were initiated in 1973 and have brought about a dramatic decrease in hijacking attempts and an even greater reduction in successful air carrier hijackings. In 1972, before implementation of these procedures, 27 airline hijackings occurred. In 1973, after the measures became effective, only 1 such incident occurred. Moreover, weapons that had been taken aboard aircraft prior to the implementation of the program were now being discovered at checkpoints by security personnel.

Since the initiation of this program there has been only one successful U.S. air carrier hijacking. None of the 25 hijackings during that 6-year period were due to real firearms or explosives passing undetected through passenger screening points. During that same period over 2 billion persons were screened and over 3 billion pieces of carry-on items inspected for more than 30 million flight departures. More than 17,000 firearms were detected resulting in almost 6,000 related arrests.

(See Exhibit 9)

In contrast to the U.S. experience, an analysis of the 42 foreign air carrier hijackings that occurred in 1977 and 1978 reveals that at least 28 of the 42 incidents occurred because of inadequate passenger screening which allowed real weapons or explosives to be carried aboard aircraft.

During this reporting period more than 304 million persons (passengers and nonpassengers) were processed through screening checkpoints at the nation's 440 air carrier airports. A total of 1,096 firearms were detected during this period as compared to 962 discovered during the first 6 months of 1978. While more handguns were discovered this

period, long guns and other firearms evidenced a decrease. Of the 991 handguns detected, 877 were discovered through x-ray inspection of carry-on items, 66 by weapons detector screening of individuals and 48 by physical search of carry-on items.

(See Exhibit 10)

Arrests for carriage of weapons during the period rose to 490, up significantly from the 404 arrests which occurred during the prior period. These 490 arrests occurred in the operations of 25 U.S. air carriers at 80 airports. Twenty-five large hub airports (e.g., Los Angeles and Chicago) accounted for 297 or 61% of the arrests and 22 medium hub airports (e.g., Memphis and Anchorage) for 103 or 21% of the arrests. The other 90 arrests, accounting for 18% of the total arrests, occurred at 33 small and non-hub airports (e.g., Little Rock and Richmond). Final prosecutive disposition on the majority of these cases is pending at this time.

V. CIVIL AVIATION SECURITY ACTIONS

Airline and airport security measures currently involve 41 U.S. and 91 foreign airlines operating almost 15,000 scheduled and charter passenger flights each day to and from 710 U.S. and foreign airports. Approximately 800,000 passengers are screened each day with over 1 million pieces of carry-on items inspected daily.

(See Exhibit 11)

The effectiveness of the U.S. Civil Aviation Security Program can be attributed to a sharing of responsibilities involving the airlines, airports, local communities, the Federal Government and the air travelers. The spirit of cooperation which characterizes these working relationships has been invaluable in making the system work successfully.

(See Exhibit 12)

Improvements in the security system are constantly being sought. Many actions and initiatives occurred during this reporting period. They are described as follows:

Airport Security - One major action during this period was the revision of Federal Aviation Regulation (FAR) Part 107 governing airport security. Other ongoing programs which contributed significantly to airport security included the training of law enforcement officers supporting airport security programs and the explosives detection K9 team program. Highlights of these important actions and programs are summarized below.

- o FAR Part 107 - This regulation was revised to update and clarify airport security requirements including provisions for broadened protection of persons and property in air transportation against acts of criminal violence and aircraft piracy. The revised rule was published in the Federal Register on December 28, 1978, and became effective March 29, 1979.

The revision of FAR Part 107 was designed, among other things, to clarify the requirement for law enforcement support and to add standards for the training of law enforcement officers as mandated by Congress. Under the revised rule, some airports may be permitted to allow the officers to patrol in the airport terminal thereby enabling them to provide broader deterrence to criminal acts of violence and protection to persons and property in air transportation while maintaining the capability of responding quickly to any need at the passenger screening checkpoint. At most airports law enforcement officers will be required to remain stationed at the passenger screening checkpoint.

Previous Reports to Congress described a number of tests that were conducted in order to ascertain the adviseability and feasibility of the quick response system. These tests revealed that under proper constraints and with favorable conditions, patrolling law enforcement officers can enhance the security of other areas of the terminal while still retaining their focus on screening stations. The FAA will continue to monitor the effectiveness of the quick response system to assure that a high level of security is maintained.

Another major change in the revised rule concerns a prohibition against unauthorized carriage of a firearm, explosive or incendiary device by persons in or entering sterile areas or presenting themselves for inspection at established passenger screening points. The rule does not prohibit the authorized carriage of firearms in a sterile area.

- o Civil Aviation Security Training School - This school is designed primarily for local law enforcement officers assigned to support airline and airport security programs. The attendance of these local officers at the 8-day course at the Transportation Safety Institute in Oklahoma City, Oklahoma, is funded by the Law Enforcement Assistance Administration (LEAA). The course provides indepth coverage of civil aviation security requirements, procedures and techniques. As of January 1979, 88 classes have been conducted for 2,074 students including 1,495 local police officers, 259 foreign students, 258 FAA employees, 37 representatives of other U.S. Government agencies and 25 aviation industry officials. In addition to the formal classes at Oklahoma City, special 2-day seminars, attended by 1,569 persons, have been conducted at 22 airports located at key cities across the nation.
- o Explosives Detection Dog Teams - The FAA, in cooperation with the LEAA, has sponsored a program to strategically locate specially Air Force-trained explosive detection dog teams in key cities near major airports. The teams are positioned so that this emergency support will be readily available to threatened aircraft flying over the U.S. within one-half hour flight time. Currently, 29 airports provide this emergency support. To date, in actual explosive detection missions, the teams have detected 24 explosive items in the course of 3,004 aircraft and airport searches. In addition, they have conducted 4,137 explosive searches in their local communities, detecting 99 additional explosive items.

During this reporting period annual proficiency evaluations were completed indicating that the K9 teams have maintained approximately a 98% detection surety rate with a false bomb alert rate of about 4%. Average search times range from 16 minutes for terminal building areas to 10 minutes for baggage areas. Aircraft search times averaged 14 minutes, vehicles 11 minutes and cargo areas 18 minutes.

(See Exhibit 13)

Aircraft Security - Significant actions in the area of aircraft security during this period included new security requirements for public charter flights and revised requirements on carriage of firearms in checked baggage. A summary of these actions follows:

- o Passenger Screening on Charter Flights - As related in previous Reports, the liberalized rules pertaining to charter flights which eliminated the previous built-in safeguards and the subsequent petition for rulemaking action plus numerous inquiries from the public contributed to FAA action in establishing rules to ensure the security of passengers on charter flights. The amendments to FARs 121.538 and 129.25, Aircraft Security and Foreign Air Carrier Security, extend the regulations to include all charters (where safeguards no longer exist) conducted by U.S. domestic, flag and supplemental air carriers and by all foreign flag and supplemental air carriers operating to and from the U.S. As of July 25, 1978, charter operators were required to implement security procedures similar to those required of air carriers operating in scheduled operations including the requirement to screen all passengers and carry-on items on all charter operations except where the passengers have a high level of affinity (i.e., military, professional football team, etc.).

The impact of the charter rule is significant. The new rule affects 41 U.S. carriers (scheduled and charter) and approximately 60 foreign air carriers conducting charter operations. Approximately 4 million charter passengers were screened during the last 6 months of 1978 as a result of the amended rule.

- o Carriage of Firearms in Checked Baggage - Over the past 3 years, loaded firearms contained in checked baggage have discharged 13 times killing 1 airline employee, gravely injuring another and causing varied amounts of property damage. During this reporting period one airline began opening gun cases which had been declared and shipped as checked baggage. This

investigation resulted in the discovery of a number of loaded firearms. Regulatory compliance actions were initiated in each case which could result in civil penalties up to \$1,000 against the passengers involved. Based on the one-airline experience, the FAA is considering other actions to warn passengers about the carriage of firearms in checked baggage.

- o Federal Air Marshals - Although Federal Air Marshals (Sky Marshals) are not used on any widespread or routine basis, the FAA has continued to maintain a cadre of highly-trained specialists to perform this function under special circumstances and on a limited basis. During this period, Federal Air Marshals participated in four missions from Georgetown, Guyana, for the purpose of assuring the protection of flights from criminal violence during the evacuation of the survivors of the Peoples Temple tragedy at Jonestown, Guyana. Thirty-nine survivors of the incident were returned to New York without incident.
- o Foreign Air Carriers - Seventy-five foreign air carriers conducting scheduled operations to the U.S. are currently covered by FAR Part 129, which requires them to implement security programs similar to those used by U.S. air carriers. Another 16 foreign operators are also covered for their public charter operations to the U.S.

Program reviews and onsite assessments of these foreign air carriers were conducted during this reporting period. With few exceptions, these carriers exhibited a positive attitude in meeting their security requirements.

Research and Development - The FAA has a comprehensive and far-reaching research and development program which constantly strives to improve the present system as well as to develop new capabilities in security equipment. The current status of those research and development efforts which have evidenced significant changes during this period is as follows:

(See Exhibits 14, 15 & 16)

- o X-Ray Absorption - An operational test of this system conducted at Newark International Airport in 1977 demonstrated that sufficient detection capabilities existed to warrant further aggressive and expeditious development. This resulted in the decision to refurbish two systems into prototype operational systems capable of being placed in an airport to process checked baggage and to gain operational experience. It is planned that these two units will be used at selected U.S. airports sometime during the first half of 1980 for a 1-year operational evaluation.
- o Nuclear Magnetic Resonance - A scale model of this system was constructed and a demonstration of the feasibility of this concept was conducted in the spring of 1978. An airport evaluation to gain experience and to gather research and development data is planned during the first 6 months of 1979.
- o Use of Small Animals to Detect Explosives - A 2-year contract was recently signed with the Veterans Administration, Philadelphia Medical Research Wing, to determine the limitations of small animals (gerbils, rats, etc.) in detecting explosives.
- o Detection Devices - Efforts are continuing to improve the performance of weapon detection devices used for airport passenger screening. Discussions have been held with detector manufacturers to ascertain improvements that need to be made to improve performance such as reducing false alarm rates while at the same time keeping detection levels high. In addition, these discussions confirmed the feasibility of designing a new generation detector with improved overall performance.

International Activities - Much progress has been made throughout the world to combat the threat to aviation posed by hijackers and saboteurs. Most nations and airlines of the world now have active civil aviation security programs and they continue to make significant improvements in the security of their air transportation systems.

Yet, much remains to be done to assure safety and security in the air industry worldwide. International cooperation and combined efforts to meet the threat remain necessary. Many international organizations have addressed themselves to the issues and they continue their efforts to optimize aviation security standards and systems. Following are some of the important efforts and accomplishments to promote international civil aviation security during this reporting period:

- o Bonn Declaration on Hijacking - In July 1978, at an Economic Summit Conference held in Bonn, Germany, President Carter and the Heads of State of six other participating nations issued a Declaration of their commitment to intensify joint efforts to combat terrorism. The Declaration announced that where a country refuses extradition or prosecution of those who have hijacked an aircraft or if the country does not return the aircraft, the seven nations would take immediate action to cease all flights to that country, halt all incoming flights from that country or from any country by airlines of the country concerned. Follow-on meetings attended by representatives of the seven countries were held in Bonn in August and Ottawa in October 1978. The purpose of these meetings was to develop necessary implementing procedures and to encourage other nations to join in the Declaration.
- o International Civil Aviation Organization (ICAO) - On December 13, 1978, Amendment #3 to Annex 17 (Security) was adopted by the Council of ICAO. This amendment details added international security specifications, amplifies others, and establishes a new international Standard dealing with the special protection of aircraft under threat. Amendment #3 will become applicable November 29, 1979.
- o International Criminal Police Organization (INTERPOL) - At its 47th General Assembly at Panama City, Panama, in October, INTERPOL considered a U.S.-drafted resolution providing that each of the delegations to the Assembly encourage their governments to take the necessary actions to prevent the use of their

territories for criminal activity related to acts of unlawful interference with civil aviation or as a refuge to avoid criminal prosecution for such acts. The resolution was adopted unanimously by more than 300 delegates representing 105 nations.

- o International Civil Aviation Security Conference - A major international conference is planned for April 1979. The meeting will be hosted by FAA and will be attended by U.S. and foreign government and industry officials responsible for national civil aviation and air carrier security programs. The conference will be held in Washington, D.C., and will concentrate on the major security concerns of the international civil aviation community. The purpose of the meeting is to promote a complete understanding of the security problems faced by the international community and to emphasize the need for comprehensive, effective security by all nations in order to meet the current threat against aviation.
- o Foreign Technical Assistance - The U.S. receives numerous requests for civil aviation security assistance throughout the world. FAA has been responsive to these requests by providing technical assistance in many forms, including indepth briefings of foreign officials, training at the Transportation Safety Institute in Oklahoma City, aviation security team visits to foreign countries and distributing technical training aids.

(See Exhibit 17)

VI. COMPLIANCE AND ENFORCEMENT

The FAA is responsible for ensuring compliance by airlines, airports and individuals with the pertinent FARs. In accordance with FAA policy, alleged or apparent violations of regulatory requirements are investigated and appropriate administrative or legal actions taken.

During 1978, 879 investigations were completed involving alleged violations of FAA security regulations. Fifty of these cases resulted in civil penalties amounting to

\$32,725; 723 were closed with administrative corrective action, including 434 warnings issued to air carriers and airport operators. In 106 cases, alleged violations were not substantiated and no enforcement actions were taken.

It is significant to note that 95 investigations were conducted on allegations that individuals had violated the provisions of FAR 121.585 which concerns the carriage of weapons aboard aircraft. Many of these involved the carriage of loaded firearms in checked baggage. In 9 of these cases, civil penalties were imposed against the individuals. Others received administrative warnings.

(See Exhibit 18)

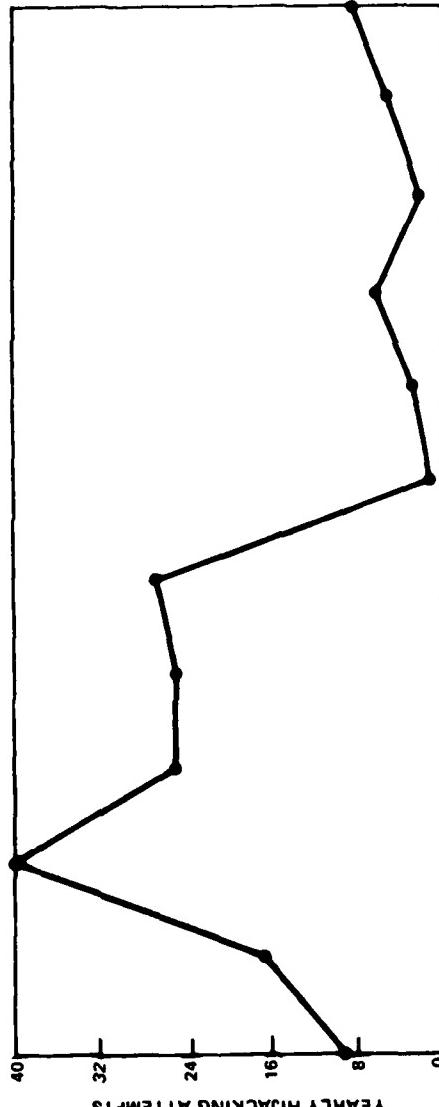
VII. OUTLOOK

Acts of hijacking continue to occur with frequency. Turmoil and unrest are present in many areas of the world and air transportation remains an attractive target to individuals and groups desiring to gain sympathy or attention to their goals.

The air traveling public continues to demand and expect positive action to eliminate these threats to the safety of air travel. The U.S. Civil Aviation Security Program has evolved and developed to meet that public demand. The program will continue to endure with success because of the harmonious efforts put forth by Government, industry and the public to achieve the common goals of safety and security in civil aviation.

HIJACKING ATTEMPTS ON U.S. SCHEDULED AIR CARRIER AIRCRAFT 1/

As of : 1/1/79



HIJACKING BY YEAR		1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	TOTALS
TOTAL		9	17	40	25	25	27	1	3	6	2	5	8	168							
SUCCESSFUL		4	13	33	17	11	8	0	0	0	1	0	0	0	0	0	0	0	0	0	87
INCOMPLETE 2/		1	1	1	4	8	14	1	1	1	1	0	3	4	39						
UNSUCCESSFUL		4	3	6	4	6	5	0	2	5	1	2	4	42							

U.S. AIR CARRIER HIJACKING ATTEMPTS SINCE JAN 1 1978

DATE	AIRLINE/FLT AIRCRAFT	NUMBER ABOARD	FLIGHT	HIJACKER	DEST/OBJECTIVE	REMARKS
1/20/78	PI/964/Y/S1	14	Kinston, N.C.	Wilmington, N.C.	Cuba	Incomplete 1 male captured
3/13/78	UA/696/B/727	75	San Fran, CA	Sanite	Cuba	Incomplete 1 male captured
4/17/8	PI/66/B/737	66	Cincinnati	Richmond	New York	Unsuccessful 1 male captured
8/25/78	TW/830/B/707	88	New York, NY	Geneva	To gain release of prisoners	Unsuccessful 1 male arrested
8/27/78	UA/179/DC8	159	Seattle, WA	Vancouver	Seattle, CO	Incomplete 1 female captured
11/23/78	NC/468/DC9	23	Milwaukee, WI	Madison, WI	Milwaukee, WI	Unsuccessful 1 male captured
12/14/78	NA/978/777	54	New York, NY	Miami, FL	Cuba	Unsuccessful 1 male captured
12/21/78	TW/541/DC9	89	St. Louis, MO	Kansas City, MO	To gain release of prisoner	Incomplete 1 female captured

1/ Includes commercial airline flights originating in continental
commercial carriage covered by Code of Federal
Regulations Title 14 Part 121

2/ Hijacking in which hijacker is unapprehended killed
during hijacking or a result of a trap set up prior to

HIJACKING ATTEMPTS ON U.S. AND FOREIGN AIRCRAFT *

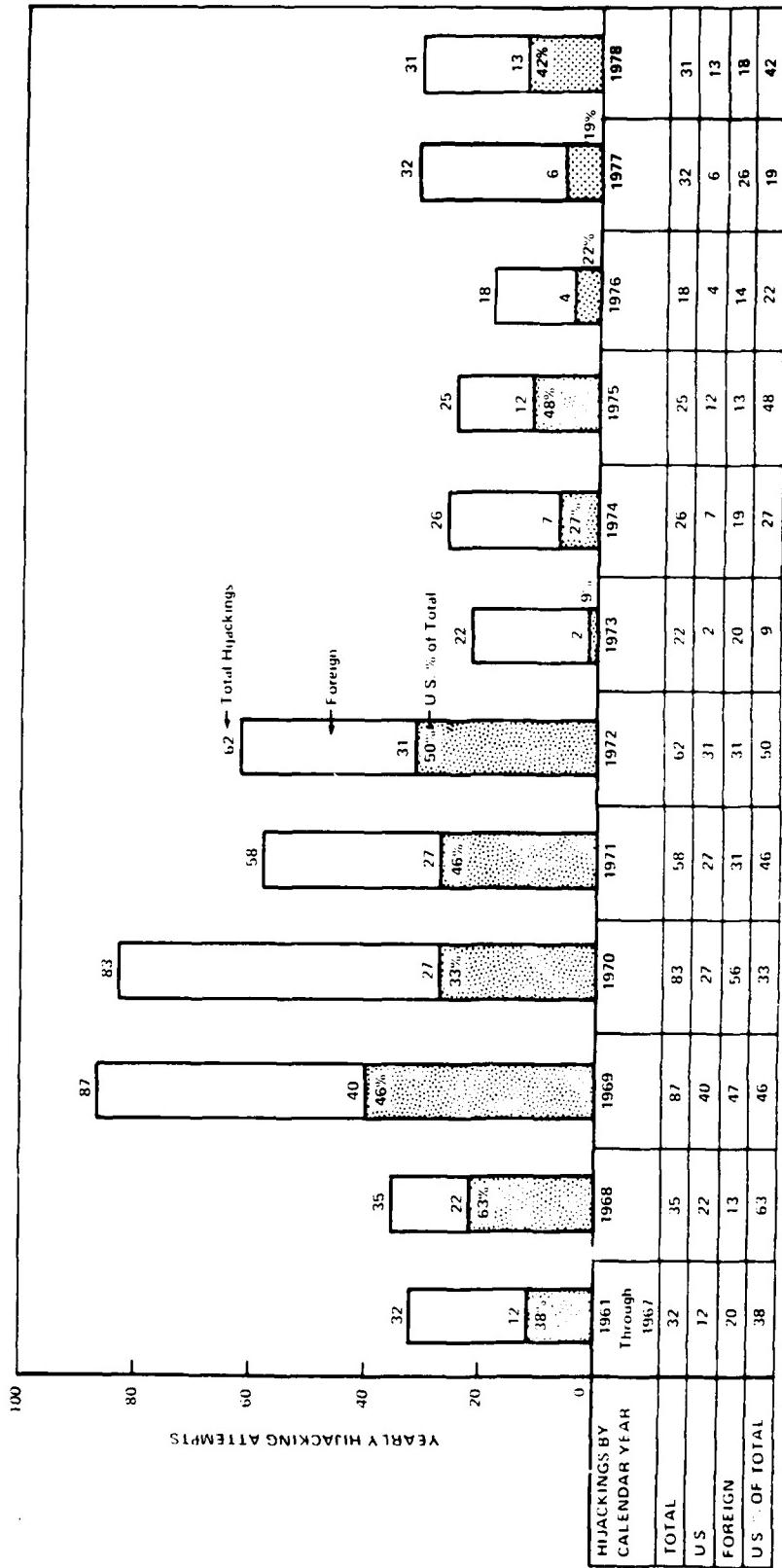


EXHIBIT 2

ACTUAL HIJACKINGS & PREVENTED ATTEMPTS
(U.S. AIR CARRIER AIRCRAFT)

As of: 1/1/79

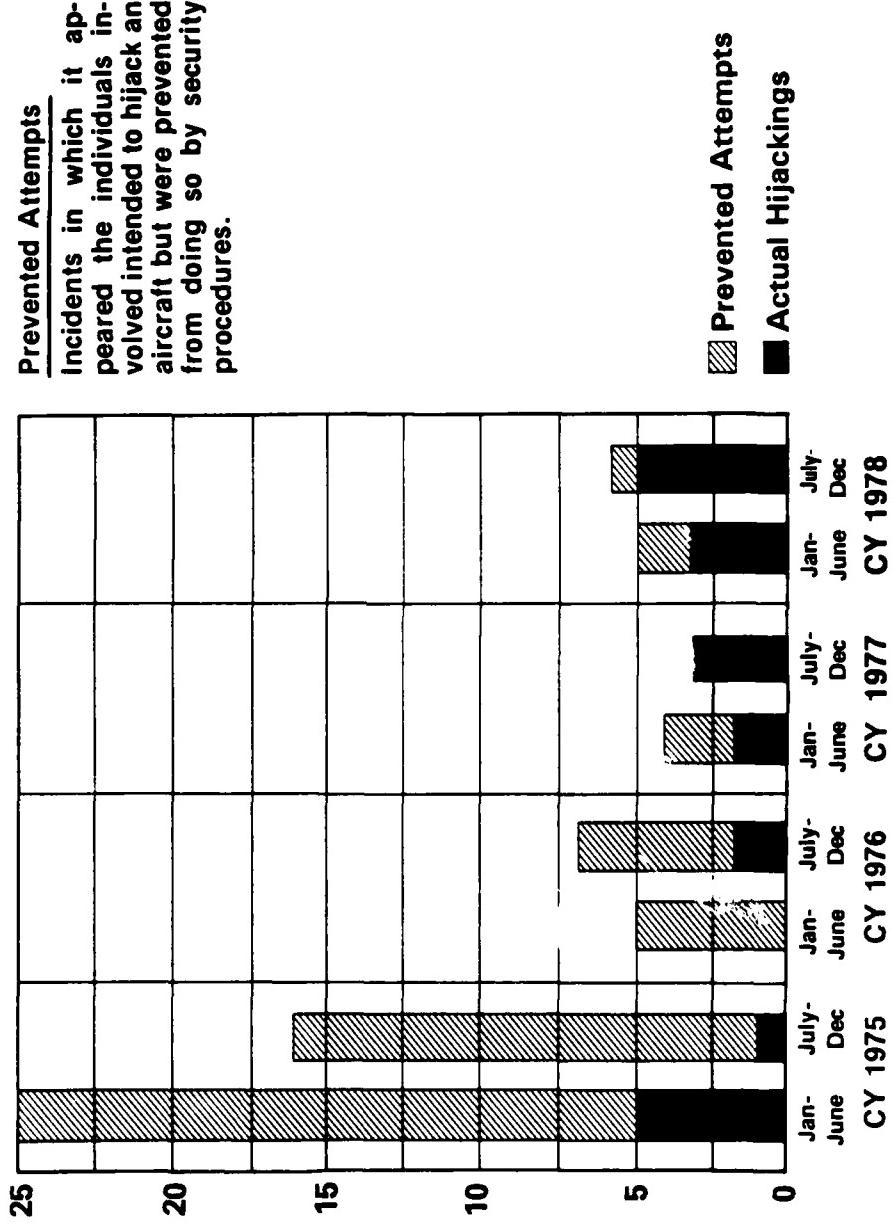
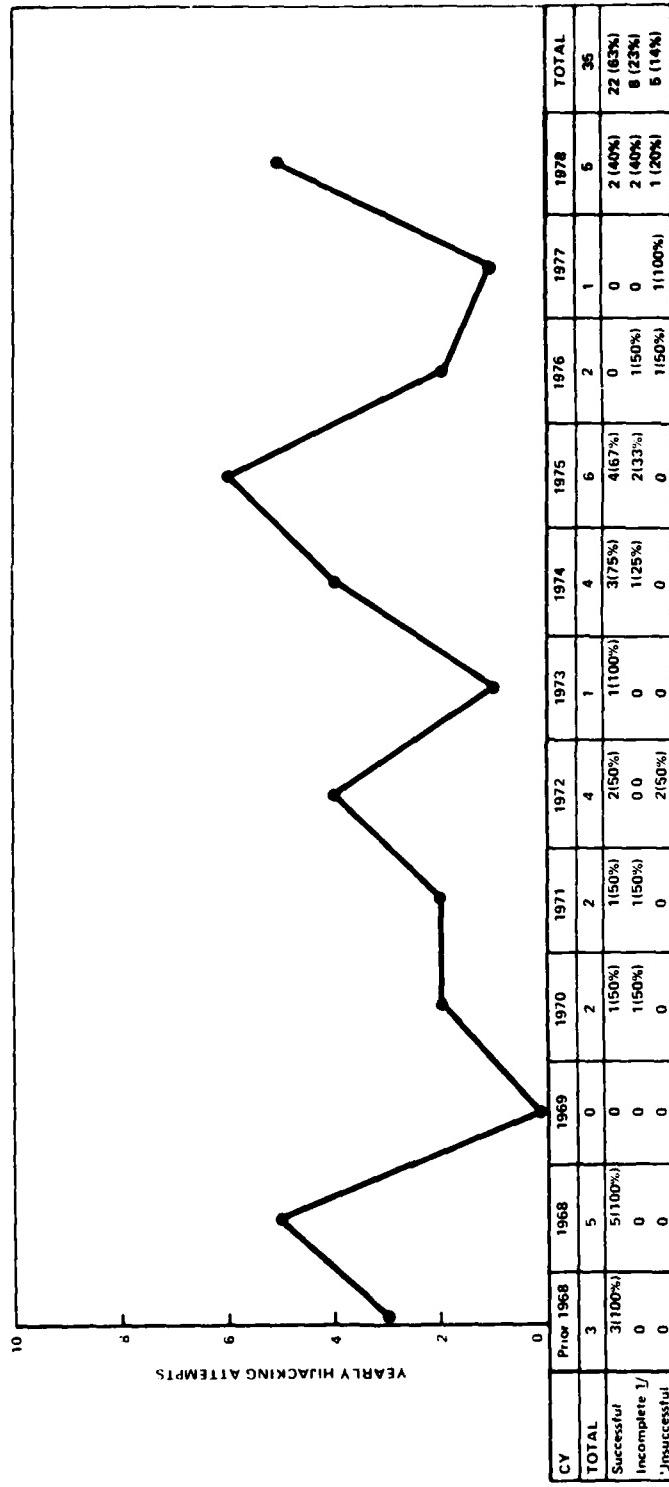


EXHIBIT 3

As Of: 1/1/79

HIJACKING ATTEMPTS ON U.S. GENERAL AVIATION AIRCRAFT



GENERAL AVIATION HIJACKING ATTEMPTS SINCE JANUARY 1, 1978

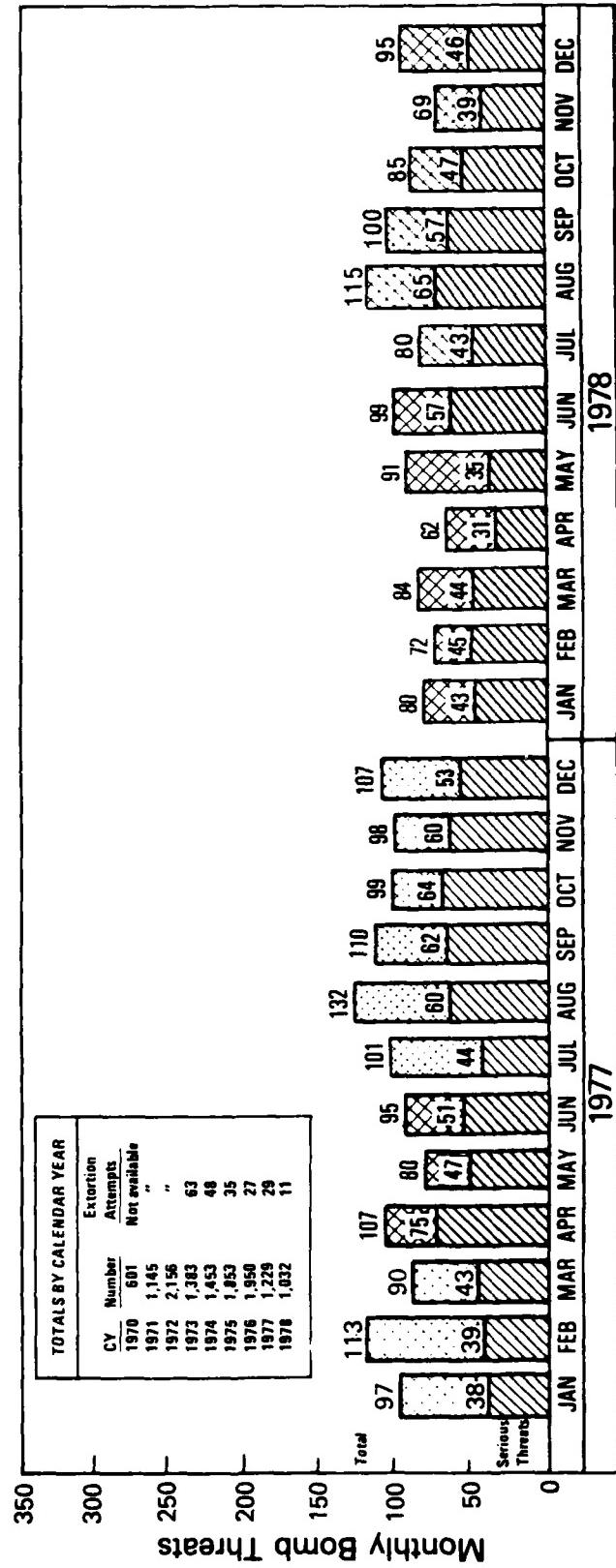
DATE	AIRCRAFT	NUMBER ABOARD	FLIGHT	HIJACKER		REMARKS
				ORIGIN	DESTINATION	
1/24/78	Cessna 205	2	Homedale, ID	None	Meuco	Unsuccessful 1 male captured
5/24/78	Bell Helicopter	2	St. Louis, MO	Cape Girardeau, MO	Marion, IL	Incomplete 1 female killed
6/30/78	Piper Seneca	4	Pueblo, CO	Greeley, CO	To escape	Successful 1 male captured
9/3/78	Cessna 182	5	Dickson, TN	None	To Escape	Successful 4 males 3 captured
12/16/78	Cessna 172	3	Rural Retreat, VA	Local	Camden SC	Incomplete 1 male captured

¹/ Hijacking in which hijacker is apprehended/killed during hijacking or as a result of "hot pursuit."

EXHIBIT 4

BOMB THREATS AGAINST U.S. AIRCRAFT AND FOREIGN AIRCRAFT IN THE U.S.

Number



ANALYSIS

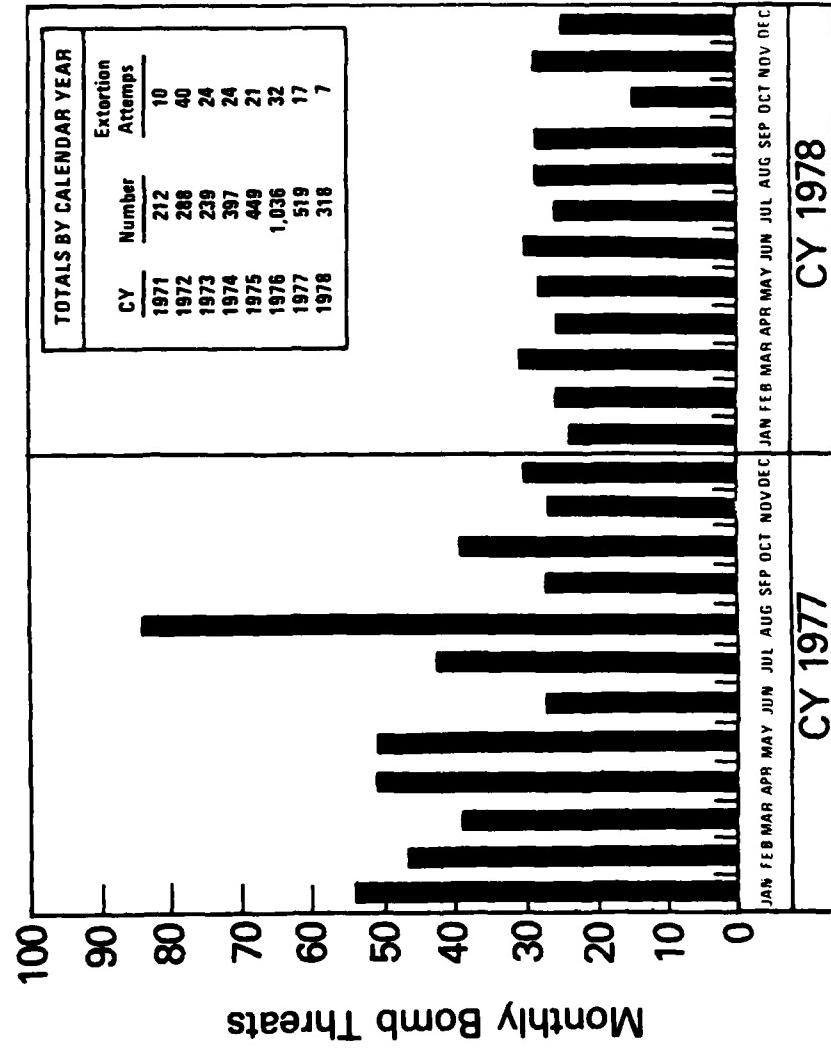
A statement is considered a serious threat if one of the following occurs

1. It is directed against a particular aircraft or flight.
2. It is not possible to immediately determine if it is made in a joking manner.
3. It results in inconvenience to other passengers.
4. It results in a search or otherwise disrupts airline operations.

DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration

BOMB THREATS AGAINST U.S. AIRPORTS

As of: 1/1/79



ANALYSIS

The high level of threats in 1976 is attributed in part to the numerous threats received subsequent to the explosion at La Guardia Airport on December 29, 1975.

EXHIBIT 6

CIVIL AVIATION SECURITY THE THREAT TO U.S. AVIATION

	1961-7	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Hijackings*	12	22	40	27	27	31	2	7	12	4	6	13
Explosions:												
Aircraft	2	1	1	2	1	1	2	3	2	2	1	0
Airports						2	2	4	4	2	3	3
Explosive Devices Found:												
Aircraft						1	2	2	1	1	2	0
Airports						5	5	3	11	5	3	1
Bomb Threats To:												
Aircraft	400	601	1145	2156	1383	1453	1853	1950	1229	1032		
Airports			212	288	239	387	449	1036	519	318		

* Includes Air Carrier and
General Aviation Hijackings

EXHIBIT 7

AS OF 1/1/79

Worldwide Criminal Incidents Involving Civil Aviation

<i>Year</i>	<i>Deaths</i>	<i>Injuries</i>	<i>Total Incidents</i>	<i>Hijackings (Scheduled Air Carriers)</i>	<i>Foreign</i>	<i>U.S.A.</i>
1968 *	2	2	30	13	17	
1969 *	35	7	92	47	40	
1970	92	32	82	56	25	
1971	31	9	73	31	25	
1972	159	96	88	31	27	
1973	104	75	73	20	1	
1974	170	59	62	19	3	
1975	88	162	64	13	6	
1976	227	200	55	13	2	
1977	129	68	69	25	5	
1978	81	147	71	17	8	

* Statistical data prior to 1970 are approximations.

EXHIBIT 8

As Of: 1/1/79

**CIVIL AVIATION SECURITY
SCOPE AND EFFECTIVENESS
1973 - 1978**

- OVER 2 BILLION PERSONS SCREENED
- OVER 3 BILLION PIECES OF CARRY-ON ITEMS INSPECTED
- OVER 31 MILLION FLIGHTS
- OVER 17,000 FIREARMS DETECTED
- ALMOST 6,000 RELATED ARRESTS
- NONE OF THE 25 U.S. AIRLINE HIJACKINGS DURING THIS PERIOD INVOLVED REAL FIREARMS OR EXPLOSIVES PASSING UNDETECTED THROUGH THE SCREENING SYSTEM
- 75 HIJACKINGS OR RELATED CRIMES MAY HAVE BEEN PREVENTED BY AIRLINE AND AIRPORT SECURITY MEASURES

EXHIBIT 9

**CIVIL AVIATION SECURITY
AIRLINE PASSENGER SCREENING RESULTS
1976-1978**

	1976		1977		1978		1978 July-Dec
	Jan-Dec	Jan-June	Jan-Dec	July-Dec	Jan-June	July-Dec	
Persons Screened (Millions)	413.6	243.1	265.7	275.2			304.5
Weapons Detected							
Firearms	3936	874	1160	962			1096
(1) Handguns	1913	745	985	836			991
(2) Long Guns	136	24	40	34			33
(3) Other	1887	105	135	92			72
Explosive/Incendiary Devices	8	2	3	1			2
Persons Arrested							
For Carriage of Firearms/ Explosives	884	370	440	404			492
For Giving False Information	156	23	21	31			33
Other Offenses Detected							
Narcotics	332	156	126	151			99
Illegal Aliens	798	474	483	723			605
Other	1149	151	242	706			69

Source — Monthly Reports Of Passenger
Screening Activities At
U.S. Airports

CIVIL AVIATION SECURITY

	<u>U.S.</u>	<u>FOREIGN</u>	<u>TOTAL</u>
Carriers	41*	91**	132
Airports	440	270	710
Aircraft	2500	—	—
Flights Per Day	14,200	570	14,770
Passengers Per Day	800,000	45,000	845,000
Carry-On Items Per Day	1,200,000	67,500	1,267,500

* Includes 34 Scheduled (including Intrastate) and 7 Charter Operators

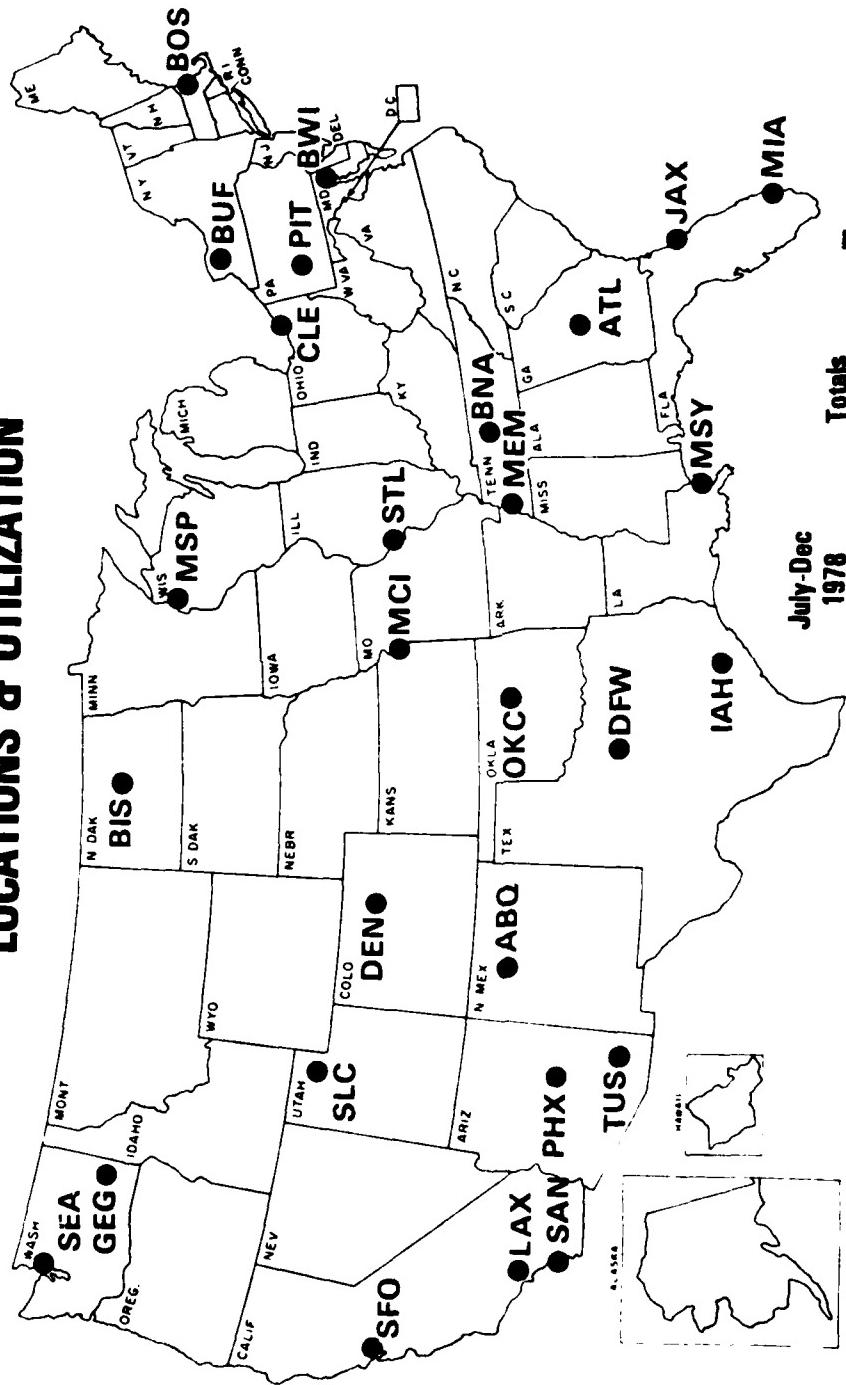
** Includes 75 Scheduled and 16 Charter Operators

As Of: 1/1/79

CIVIL AVIATION SECURITY BASIC POLICIES

<u>PROGRAM ELEMENT</u>	<u>RESPONSIBILITY</u>	<u>ACTIONS</u>
AIR CARRIERS	SECURE TRAVEL	<ul style="list-style-type: none">• MAINTAIN RESPONSIVE SECURITY PROGRAMS• SCREEN PASSENGERS, CARRY-ON ITEMS• SECURE BAGGAGE, CARGO PROCEDURES• PROTECT AIRCRAFT
AIRPORTS	SECURE OPERATING ENVIRONMENT	<ul style="list-style-type: none">• MAINTAIN RESPONSIVE SECURITY PROGRAMS• PROTECT AIR OPERATIONS AREA• PROVIDE LAW ENFORCEMENT SUPPORT
FAA	LEADERSHIP	<ul style="list-style-type: none">• IDENTIFY AND ANALYZE THREAT• PRESCRIBE SECURITY REQUIREMENTS• COORDINATE SECURITY OPERATIONS• PROVIDE TECHNICAL ASSISTANCE• ENFORCE REGULATIONS
USERS	PROGRAM COSTS	<ul style="list-style-type: none">• SECURITY FUNDED AS OPERATING COST OF SYSTEM

FAA SPONSORED EXPLOSIVE DETECTION K9 TEAMS LOCATIONS & UTILIZATION



Aircraft & Airport Searches

Explosive Items Detected

Missions in Local Communities

Explosive Items Detected

Total Explosive Items Detected

	July-Dec 1978	Totals
556	3004	
0	24	
420	4137	
4	99	
4	123	

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As Of: 1/1/79

CIVIL AVIATION SECURITY WEAPON DETECTION DEVICES

<u>Type</u>	<u>Basic Characteristics</u>	<u>Manufacturer</u>	<u>Units</u>
Walk-Thru Active	Creates and Measures Deviations in Own Electric Field. Detects Both Ferrous and Non- Ferrous Metals.	Rens Infinetics Metor Westinghouse Sperry Rand Solco Sentre	672 298 84 27 10 22 162
		Total	<u>1275</u>
Hand-Held Active	Comparable To Walk- Thru Active. Limited Effective Range.	Rens Federal Solco	230 250 <u>720</u>
		Total	<u>1200</u>

Total — All Types — 2475

As Of: 1/1/79

CIVIL AVIATION SECURITY
X-RAY BAGGAGE INSPECTION SYSTEMS

<u>Characteristics:</u>	Small Dose X-Ray, Intensity Image Electronically, Display on TV
<u>Operating Criteria:</u>	Meet FDA/BRH and State Health Standards Distinguish 24 Gauge Wire
<u>Limitations:</u>	Dependent on Diligence of Operators, Demands Constant Attention and Ability to Quickly Recognize Dangerous Articles
<u>Systems In Use:</u>	Astrophysics 276 Phillips Electronic Instruments 109 Bendix 106 American Science & Engineering 51 New Security Concepts 36 Dennis & Miller 27 Total: <u>605</u>

As of 1/1/79

**CIVIL AVIATION SECURITY
RESEARCH AND DEVELOPMENT
CHECKED BAGGAGE EXPLOSIVE DETECTION**

X-RAY ABSORPTION

Two Units Designed For Checked Baggage Being Built For
Operational Testing

Delivery Scheduled For March 1980

THERMAL NEUTRON ACTIVATION

Construction of Prototype Complete
Prototype Evaluation Scheduled For August 1979

NUCLEAR MAGNETIC RESONANCE

Construction of Prototype Complete
Prototype Evaluation Scheduled For March 1979

VAPOR CHARACTERIZATION

To Identify Unique Vapors Associated With Different Types of Explosives
Scheduled For Completion By November 1979

EXPLOSIVE DETECTION BIOLOGICALLY

Use of Small Mammals (Gerbils, Rats) To Detect Explosive Vapors
Test Cages Delivered
Animals Habituated To Laboratory

AS OF: 1/1/79

CIVIL AVIATION SECURITY FOREIGN TECHNICAL ASSISTANCE

ACTIONS	COUNTRIES PARTICIPATING
• FAA Technical Assistance Team Visits	26
• Aviation/Law Enforcement Officials Briefings	66
• Training Programs:	
— TSI Course (Students)	64 (259)
— Anti hijacking Tactics	26
— Ground Explosive Procedures	64
— Inflight Explosive Procedures	81
— Passenger Screening	10
• Analytical Studies Distribution	15

As of: 1/1/79

CIVIL AVIATION SECURITY COMPLIANCE AND ENFORCEMENT ACTIONS

<u>U.S. AIR CARRIERS</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
Warnings	—	—	329	270	276	266
Letters of Correction	152	124	128	110	109	145
Non Enforcement Actions	66	36	63	108	61	65
Civil Penalties (Amount)	43 (\$42,850)	58 (\$75,750)	56 (\$45,300)	84 (\$46,800)	43 (\$66,700)	30 (\$23,300)
Investigations Closed	261	218	576	572	489	506
Investigations Pending				61	48	
<u>FOREIGN AIR CARRIERS</u>						
Warnings	NO Regulation Applicable	0	0	0	0	0
Letters of Correction		0	12	11	11	11
Non Enforcement Actions		3	2	2	3	3
Civil Penalties (Amount)		0	0	0	0	0
Investigations Closed		3	14	13	14	14
Investigations Pending			2	2	12	12
<u>AIRPORTS</u>						
Warnings Issued	—	—	125	141	137	168
Letters of Correction	40	68	83	68	53	65
Non Enforcement Actions	11	14	7	18	23	20
Civil Penalties (Amount)	1 (\$1,000)	14 (\$6,750)	16 (\$14,450)	19 (\$10,400)	12 (\$3,500)	11 (\$7,500)
Investigations Closed	52	96	231	246	225	264
Investigations Pending				23	23	29
<u>INDIVIDUALS</u>						
Administrative Corrections	1	27	81	81	68	68
Non Enforcement Actions		41	24	18	18	18
Civil Penalties (Amount)		1 (\$25)	1 (\$350)	4 (\$2050)	9 (\$1,925)	9 (\$1,925)
Investigations Closed		4	69	109	95	95
Investigations Pending				14	45	45

As Of: 1/1/79

DATE
FILMED

3-8